

Count Vowels Permutation [\(View\)](#)

Given an integer `n`, your task is to count how many strings of length `n` can be formed under the following rules:

- Each character is a lower case vowel ('a', 'e', 'i', 'o', 'u')
- Each vowel 'a' may only be followed by an 'e'.
- Each vowel 'e' may only be followed by an 'a' or an 'i'.
- Each vowel 'i' **may not** be followed by another 'i'.
- Each vowel 'o' may only be followed by an 'i' or a 'u'.
- Each vowel 'u' may only be followed by an 'a'.

Since the answer may be too large, return it modulo $10^9 + 7$.

Example 1:

Input: `n = 1`

Output: 5

Explanation: All possible strings are: "a", "e", "i", "o" and "u".

Example 2:

Input: `n = 2`

Output: 10

Explanation: All possible strings are: "ae", "ea", "ei", "ia", "ie", "io", "iu", "oi", "ou" and "ua".

Example 3:

Input: `n = 5`

Output: 68

Constraints:

- $1 \leq n \leq 2 * 10^4$